REMARKS/ARGUMENTS

Applicants respectfully request reconsideration and allowance in view of the foregoing amendments and following remarks. In the Final Office Action, mailed February 10, 2009, the Examiner rejected claims 19-55. By this response, claims 32-49 have been amended. Following entry of this response, claims 19-55 will be pending in the application.

No new matter is being presented, and approval and entry of the amended claims is respectfully requested.

Claim Rejections – 35 USC § 101

Claims 32-55 are rejected under 35 U.S.C. § 101 because the claimed invention allegedly is not supported by either a detailed specifications asserted utility or a well established utility.

First, Applicants note that claims 52-55 depend from method claim 28 and that the present rejection does not apply to these claims.

Regarding claims 32-40, these claims refer to a "memory unit having software codes stored thereon...." Applicants respectfully submit that a memory unit is an article of manufacture and, as such, Applicants submit these claims are directed to statutory subject matter.

Regarding claims 41-51, Applicants submit these claims refer to apparatus, which is statutory subject matter.

Accordingly, Applicants respectfully request withdrawal of this rejection.

Claim Rejections – 35 USC § 112

Claims 32-55 are rejected under 35 U.S.C. § 112, first paragraph. Specifically, the office action alleges that since the claimed invention is not supported by either a described specifications asserted utility or a well established utility for the reasons set forth above, one skilled in the art clearly would not know how to use the claimed invention.

Again, Applicants note that claims 52-55 depend from method claim 28 and that the present rejection does not apply to these claims.

Regarding claims 32-40, these claims have been amended to recite a "memory unit having software codes stored thereon..." Regarding claims 41-49, these claims have been amended to refer to an apparatus having a processor and memory unit coupled to the processor and having software codes stored thereon. Support for these amendments is in paragraph [0102]. Accordingly, Applicants respectfully request withdrawal of this rejection.

Regarding claims 50-51, Applicants submit these claims refer to first and second processors that perform operations of elements shown in FIG. 7 and described in the specification in paragraphs [0065]-[0070]. For example, the first processor performs operations such as those described with reference to TX Data processor 310 shown and FIG. 7, while the second processor performs operations such as those described with reference to detector 440c shown in FIG. 7.

Accordingly, Applicants respectfully request withdrawal of this rejection.

Claim Rejections – 35 USC § 103

Claims 19-31 are rejected under 35 USC § 103(a), as being allegedly unpatentable over *Bottomley* (U.S. Patent No. 5,506,861) in view of *Stopler et al.* (U.S. Patent No. 6,920,194, hereinafter, "*Stopler*").

Applicants respectfully traverse these rejections.

The Examiner bears the initial burden of establishing a prima facie case of obviousness. See MPEP § 2141. Establishing a prima facie case of obviousness begins with first resolving the factual inquiries of Graham v. John Deere Co. 383 U.S. 1 (1966). The factual inquiries are as follows:

(A) determining the scope and content of the prior art;
(B) ascertaining the differences between the claimed invention and the prior art;

(C) resolving the level of ordinary skill in the art; and

(D) considering any objective indicia of nonobviousness.

Once the Graham factual inquiries are resolved, the Examiner must determine whether the claimed invention would have been obvious to one of ordinary skill in the art.

Applicants respectfully submit that the Examiner has not properly characterized the teachings of the references and, as a result, has failed to ascertain differences between the claimed invention and the prior art. Accordingly, a prima facie case of obviousness has not been established.

As an example, Applicants submit the Examiner has not properly characterized the teachings of *Bottomley*. While the Examiner concedes that *Bottomley* does not teach the claimed "*a threshold computation unit operative to determine a threshold based on the hypothesized data transmission*", the Examiner relies on *Stopler* as teaching this element, but incorrectly states that *Bottomley* does teach "*a signal detector operative to determine a metric for a data transmission hypothesized to have been received"* and *"a comparator operative to receive the metric and the threshold and provide an output indicating whether or not the data transmission is deemed to have been received;*" as recited in claim 19.

Applicants respectfully submit that *Bottomley* does not actually teach *comparing a determined metric to a threshold value*, as suggested by the Examiner. In contrast, *Bottomley* teaches only *minimizing a metric* (in this case, a residual signal calculated as the difference between the actual received signal and the hypothesized received signal). In other words, a search is performed to find a minimum metric value, but a metric is not compared to a threshold value, as recited in claim 19. This is clearly described in column 8, lines 32-49 and column 9 lines 26-33.

Thus, even if combined as suggested in the Office Action, the combination of As *Bottomley* and *Stopler* fails to teach the combination of elements recited in clam 19. Claims 28, 31, 32 and 41 recite similar elements as claim 19 that are not taught in the combination of cited references.

Accordingly, Applicants submit claims 19, 28, 31, 32 and 41, as well as their dependents, are allowable and respectfully request withdrawal of this rejection.

Regarding claim 24, the Examiner rejects this claim on the same bases as claim 19. Applicants respectfully submit, however, that even if combined, the combination of *Bottomley* and *Stopler* fails to teach "processing received data symbols for a data transmission hypothesized to have been received to provide remodulated symbols that are estimates of transmitted data symbols" and "processing the received data symbols and the remodulated symbols to provide a detector output that indicates whether or not the data transmission is deemed to have been received" as recited in this claim.

In fact, none of these references describe generating remodulating symbols at all. Remodulated symbols may be generated, for example, by "demodulating the received data symbols to provide recovered symbols, decoding the recovered symbols to provide decoded data, and re-encoding the decoded data to provide the remodulated symbols" as explicitly claimed in claim 25. In contrast, *Bottomley* teaches the use of known signature sequences to generate correlation values with received signals (*e.g.*, see col. 3, lines 39-42).

For at least these reasons, Applicants submit claim 24 is allowable over *Bottomley* and *Stopler*. Claims 29, 37, 46 and 50 recite similar elements as claim 24 that are not taught in the combination of cited references. These claims are also rejected on the same bases as claim 24.

Accordingly, Applicants submit claims 24, 29, 37, 46 and 50, as well as their dependents, are allowable over the art of record and respectfully request withdrawal of this rejection.

CONCLUSION

Therefore, for at least the reasons presented above with respect to all of the pending claims subsequent to entry of this response, Applicants assert that all claims are patentably distinct from all of the art of record. All objections and rejections having been addressed, it is respectfully submitted that this application is in condition for allowance and a Notice to that effect is earnestly solicited. If any points remain in issue that the Examiner feels may be best

resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

Charge Statement: For this application, the Commissioner is hereby authorized to charge any required fees or credit any overpayment to Deposit Account 17-0026.

Respectfully submitted,
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